

Find a polynomial function with real coefficients that has the given zeros.

1. 4, -2, $5i$

2. 1, -4, $-3+5i$

3. -3, 0, 1, 4

4. 3, $2 - \sqrt{3}$

5. Zeros: -2 m:2, -1

Degree: 3

Rises to the left

Falls to the right

6. Zeros: -1 m:2, -2

Degree: 3

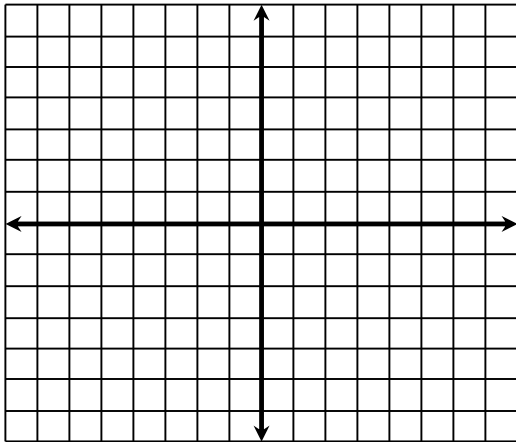
Falls to the left

Rises to the right

Graph the next two problems using the method taught in class.

7. $f(x) = x^5 - 4x^3 + 8x^2 - 32$

8. $f(x) = x^4 - 2x^3 - 8x^2$

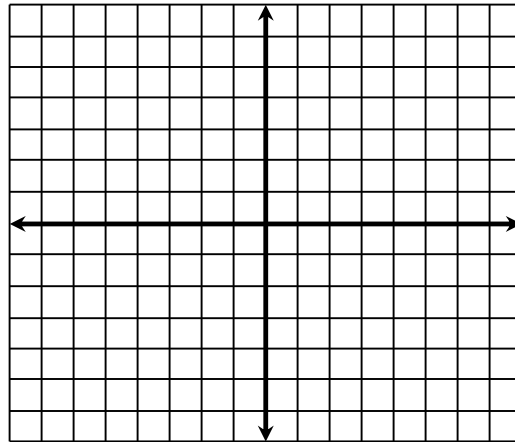


Step 1:

Step 2:

Step 3:

Step 4:



Step 1:

Step 2:

Step 3:

Step 4:

Find all the zeros.

9. $f(x) = x^3 - 4x^2 + 6x - 4$

10. $f(x) = x^4 - x^3 - 9x^2 + 7x + 14$